



Wednesday, February 12, 2020

Attn: Mr. Keith Gammell  
Barnhardt Mfg. Co.  
247 Main Rd  
P.O. Box 3  
Colrain, MA 01340

Project ID: NPDES FEBRUARY 2020  
SDG ID: GCF27218  
Sample ID#s: CF27218

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

February 12, 2020

SDG I.D.: GCF27218

Project ID: NPDES FEBRUARY 2020

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Client Id	Lab Id	Matrix
EFFLUENT	CF27218	WASTE WATER



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## Analysis Report

February 12, 2020

FOR: Attn: Mr. Keith Gammell  
Barnhardt Mfg. Co.  
247 Main Rd  
P.O. Box 3  
Colrain, MA 01340

### Sample Information

Matrix: WASTE WATER  
Location Code: BARNHARD  
Rush Request: Standard  
P.O.#: G11301

### Custody Information

Collected by:  
Received by: CP  
Analyzed by: see "By" below

### Date

02/05/20  
02/05/20

### Time

7:00  
17:00

## Laboratory Data

SDG ID: GCF27218  
Phoenix ID: CF27218

Project ID: NPDES FEBRUARY 2020  
Client ID: EFFLUENT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	0.020	0.003	mg/L	1	02/08/20	CPP	E200.7
B.O.D./5 day	4.7	4.0	mg/L	2	02/06/20 11:43	RVM/DR	SM 5210B-11
B.O.D./5 day End Incubation					02/11/20 13:47	RVM/DR	SM 5210B-11
C.O.D.	214	10	mg/L	1	02/06/20	NLM/MSF	SM 5220C-11
Ammonia as Nitrogen	0.40	0.25	mg/L	5	02/08/20	KDB	E350.1
Nitrite as Nitrogen	0.018	0.004	mg/L	1	02/06/20 01:06	BS/EG	E300.0
Nitrate as Nitrogen	< 0.05	0.05	mg/L	1	02/06/20 01:06	BS/EG	E300.0
Nitrogen Tot Kjeldahl	8.65	0.50	mg/L	5	02/08/20	KDB	E351.1
Total Nitrogen	8.67	0.10	mg/L	1	02/08/20	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.655	0.020	mg/L	2	02/10/20	JR	SM4500PE-11
Total Suspended Solids	24	10	mg/L	2	02/07/20	ARG	SM 2540D-11
Total Metals Digestion	Completed				02/07/20	AG	

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### Comments:

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Phyllis Shiller, Laboratory Director

February 12, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



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## QA/QC Report

February 12, 2020

### QA/QC Data

SDG I.D.: GCF27218

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 517810 (mg/L), QC Sample No: CF27424 (CF27218)													
<u>ICP Metals - Aqueous</u>													
Copper	BRL	0.0025	0.053	0.0528	0.40	102	99.8	2.2	103			80 - 120	20



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## QA/QC Report

February 12, 2020

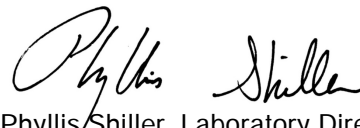
### QA/QC Data

SDG I.D.: GCF27218

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 517500 (mg/L), QC Sample No: CF26729 (CF27218)													
B.O.D./5 day	BRL	2.0	<4.0	<4.0	NC	98.0			103			70 - 130	20
B.O.D./5 day GGA BOD						91.9						84 - 115	20
QA/QC Batch 517431 (mg/L), QC Sample No: CF27058 (CF27218)													
C.O.D.	BRL	10	29	29	NC	98.5			99.6			85 - 115	20
Comment:													
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.													
QA/QC Batch 517901 (mg/L), QC Sample No: CF27218 (CF27218)													
Phosphorus, as P	BRL	0.01	0.655	0.693	5.60	98.6			105			85 - 115	20
Comment:													
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.													
QA/QC Batch 517723 (mg/L), QC Sample No: CF27218 (CF27218)													
Total Suspended Solids	BRL	2.5	24	20	NC	94.0						85 - 115	
QA/QC Batch 517516 (mg/L), QC Sample No: CF27416 (CF27218)													
Nitrate as Nitrogen	BRL	0.05	0.03	<0.05	NC	94.1			101			90 - 110	20
Nitrite as Nitrogen	BRL	0.004	<0.004	<0.004	NC	93.2			97.2			90 - 110	20
QA/QC Batch 517793 (mg/L), QC Sample No: CF26779 (CF27218)													
Ammonia as Nitrogen	BRL	0.05	0.51	0.48	6.10	106			102			90 - 110	20
Nitrogen Tot Kjeldahl	BRL	0.10	2.71	2.33	15.1	103			99.0			85 - 115	20
Comment:													
TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.													

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference  
LCS - Laboratory Control Sample  
LCSD - Laboratory Control Sample Duplicate  
MS - Matrix Spike  
MS Dup - Matrix Spike Duplicate  
NC - No Criteria  
Intf - Interference

  
Phyllis Shiller, Laboratory Director  
February 12, 2020

Wednesday, February 12, 2020

Criteria: None  
State: MA

**Sample Criteria Exceedances Report**  
**GCF27218 - BARNHARD**

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



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## Analysis Comments

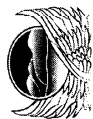
February 12, 2020

SDG I.D.: GCF27218

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

## **CHAIN OF CUSTODY RECORD**



# PHOENIX

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
Email: [info@phoenixlabs.com](mailto:info@phoenixlabs.com) Fax (860) 645-0823  
**Client Services (860) 645-8726**

**Data Delivery/Contact Options:**

Fax:	Phone:	Email:

Temp, °C	Pg	of
2.0		

Customer: Bernhard  
Address: 247 main Rd  
A1000 Mass 01340

Project: NPDES February 2020

Report to: Keith Gamwell

Invoice to: Benhardt

QUOTE #

***This section MUST be completed with Bottle Quantities.***

### Client Sample - Information - Identification

Sampler's Signature: KE-17 Date: 2-5-20

**Matrix Code:**  
 GW=Ground Water    SW=Surface Water    WW=Waste Water  
 DR=Drinking Water    SE=Sediment    SL=Sludge    S=Soil    SD=Solid    W=Wipe    OIL=Oil  
 RW=Raw Water    (Other)  
 B=Bulk    L=Liquid    X=

HOENIX USE ONLY	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
27018	Effluent	WW	2-5-20	7am
	Effluent	WW	2-5-20	7am
	Effluent	WW	2-5-20	7am
	Effluent	WW	2-5-20	7am
	Effluent	WW	2-5-20	7am

## Analysis Request

Analysis Request	QUOTE #
TKN / Total Nitrogen	
Nitrite + Nitrate / OD	
BOD5 - Nitrate as N / TSS	
Total Copper	
Barium & Nitrate	

**Relinquished by:**

**Accepted by:**

Date:

•

ri

5

MA

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### Data Format

Comments, Special Requirements or Regulations:

**Turnaround Time:**

☐ 1 Day\*  
☐ 2 Days\*  
☐ 3 Days\*  
☒ Standard  
☐ Other

**\* SURCHARGE APPLIES**

**State where samples were collected:**

2

**\* SURCHARGE APPLIES**